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(54) Title: ANTIGENE LOCKS AND THERAPEUTIC USES THEREOF

(57) **Abstract:** An oligonucleotide based therapeutic strategy, called anti-gene locks, is described which specifically kills cells based on their genotype. The strategy employs oligonucleotides with arms and a backbone that are complementary to both strands of the gene target. Anti-gene locks bind *in vitro* in a sequence dependent fashion and inhibit DNA synthesis. In bacterial cells containing an episome target, they cause elimination of the extra-chromosomal DNA structure. When the target is present in the bacterial or human genome, they selectively kill the majority of these cells.

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